

WHAT IS CLAIMED IS:

1. A bus layout design comprising:
a first electrically conductive layer including at least a first bus and a second bus,
a second electrically conductive layer including at least a first bus and a second bus,
an electrically insulating layer disposed between the first electrically conductive layer and the second electrically conductive layer,
a plurality of vias through said electrically insulating layer conductively connecting said first electrically conductive layer and said second electrically conductive layer and arranged such that said first bus and said second bus of said first electrically conductive layer are electrically connected.
2. The bus layout design of claim 1, wherein said plurality of vias connecting said first electrically conductive layer and said second electrically conductive layer are arranged such that said first bus and said second bus of said second electrically conductive layer are electrically connected.
3. The bus layout design of claim 1, wherein said first and second bus of said first electrically conductive layer overlap said second bus of said second electrically conductive layer.
4. The bus layout design of claim 1, wherein said first and second buses of the first electrically conductive layer overlap said first and second buses of the second electrically conductive layer across the entire input/output width.

5. The bus layout design of claim 1, wherein said plurality of vias connecting said first electrically conductive layer and said second electrically conductive layer are arranged such that said first bus and said second bus of said second electrically conductive layer are electrically connected; and

wherein said first and second bus of said first electrically conductive layer overlaps said first and second bus of said electrically conductive layer; across the entire input/output width

6. A bus layout design comprising:

a first electrically conductive layer including a plurality of buses not conductively connected to each other on said first electrically conductive layer;

a second electrically conductive layer including a plurality of buses not conductively connected to each other on said second electrically conductive layer;

an electrically insulating layer disposed between the first electrically conductive layer and the second electrically conductive layer; and

wherein at least one bus on said first electrically conductive layer is conductively connected to at least one bus on said second electrically conductive layer through said electrically insulating layer.

7. The bus layout design of claim 6, wherein at least one bus on said first electrically conductive layer overlaps with at least one bus on said second electrically conductive layer.

8. The bus layout design of claim 6, further comprising a plurality of vias through said electrically insulating layer, said vias conductively connect at least one bus on said first electrically conductive layer to at least one bus on said second electrically conductive layer.

9. A method of providing a bus layout design comprising:
- providing a first electrically conductive layer which includes a plurality of buses not conductively connected to each other on the first electrically conductive layer;
 - providing a second electrically conductive layer which includes a plurality of buses not conductively connected to each other on the second electrically conductive layer;
 - using an electrically insulating layer between the first electrically conductive layer and the second electrically conductive layer to electrically insulate the first electrically conductive layer from the second electrically conductive layer; and
 - conductively connecting at least one bus on the first electrically conductive layer to at least one bus on the second electrically conductive layer through the electrically insulating layer.
10. The method of claim 9, further comprising providing that at least one bus on the first electrically conductive layer overlaps with at least one bus on the second electrically conductive layer.
11. The method of claim 9, wherein the step of conductively connecting at least one bus on the first electrically conductive layer to at least one bus on the second electrically conductive layer through the electrically insulating layer comprises using a plurality of vias through the electrically insulating layer.